

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 September 2003 (25.09.2003)

PCT

(10) International Publication Number
WO 03/079439 A2

(51) International Patent Classification⁷: **H01L 25/065**,
21/50, 21/60, 23/00, 23/10

(21) International Application Number: PCT/IB03/00938

(22) International Filing Date: 11 March 2003 (11.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02/03370 19 March 2002 (19.03.2002) FR

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

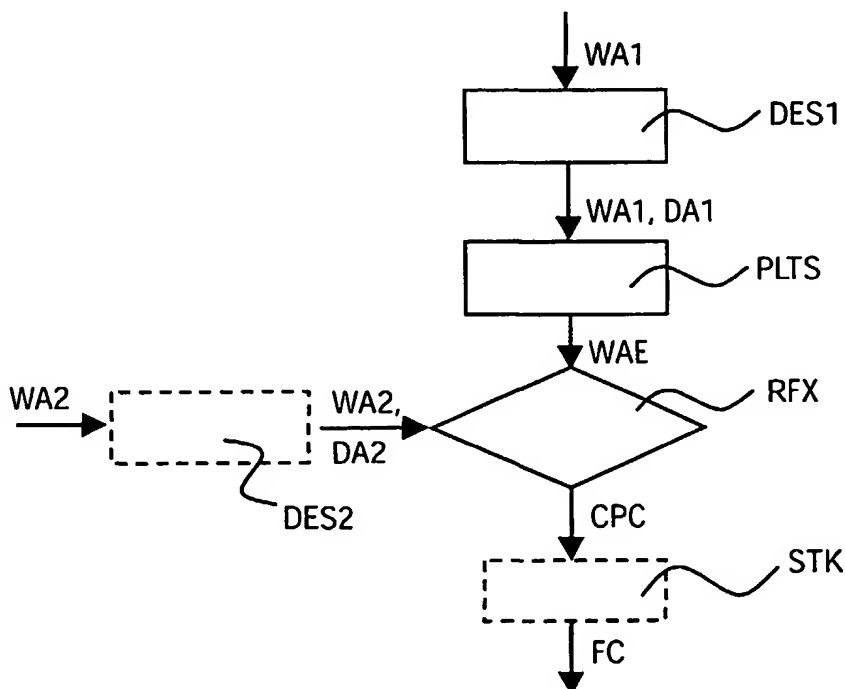
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DESIGN OF AN INSULATED CAVITY



(57) **Abstract:** The invention relates to a method for connecting a connecting surface of a first silicon wafer [WA1] with a connecting surface of a second silicon wafer [WA2] so as to form an insulated cavity after assembly, at least one of the two silicon wafers [WA] including at least one functional area [DA] intended to be within the cavity. The method according to the invention includes a step [PLTS] of depositing alloy soldering bumps [PLTC] on the connecting surface of the first silicon wafer [WA1], said bumps [PLTC] being separated from one another by an even distance which is sufficiently small to cause joinings during the assembly of the two silicon wafers. Said step [PLTS] of depositing the soldering bumps [PLTC] is carried out during the step of depositing the soldering bumps [PLTE] intended for the electrical contacts. The method includes a reflux soldering step [RFX] for assembling the two silicon wafers by

melting of the alloy soldering bumps. Application: Protection of semiconductor elements sensitive to the external conditions.